

6064229

Fluor Hanford
WSCF Analytical Chemistry
P.O. Box 1000
Richland, WA 99354
Telephone 373-7495
Telefax 372-0456

RECEIVED
MAR 29 2005

EDMC

FLUOR

Memorandum

M8141-SLF-04-292

To: S. J. Trent A0-21 Date: October 18, 2004

From: S. L. Fitzgerald, Manager
WSCF Analytical Chemistry

cc: w/Attachments w/o Attachments
T. F. Dale S3-28 D. J. Hart S3-30
H. K. Meznarich S3-30 M. A. Neely S3-30
P. D. Mix S3-30 H. S. Rich S3-28
J. E. Trechter S3-30 L. C. Swanson E6-35
File/LB

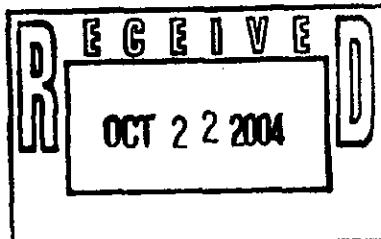
Subject: FINAL RESULTS FOR 200-LW-1/LW-2 CHARACTERIZATION - SOIL - SAMPLE
DELIVERY GROUP WSCF20041599 - SAF NUMBER F03-025

Reference: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001,
October 31, 2002
(2) HNF-SD-CD-QAPP-017, Rev. 6, Waste Sampling & Characterization Facility Quality
Assurance Plan

This letter contains a narrative (Attachment 1) for sample delivery group WSCF20041599, the analytical results (Attachment 2), and the sample receipt information (Attachment 3).

SLF/grf

Attachments 3



M8141-SLF-04-292

ATTACHMENT 1

NARRATIVE

Consisting of 7 pages
Including cover page

Sample Delivery Group	WSCF20041599
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F03-025
Data Deliverable	Summary Report

Introduction

One (1) 200-LW-1/LW-2 Characterization – Soil, GRP sample (B191H0) was received at the WSCF Laboratory on September 13, 2004. The sample was analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and Request for Sample Analysis forms are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Ammonia by EPA Method 300.7. Analytical work was performed with no deviations to the approved method.
- Anions by EPA Method 300. Analytical work was performed with no deviations to the approved method.
- Cyanide by EPA Method 335.2. Analytical work was performed with no deviations to the approved method.
- ICP-AES Metals by EPA Method 6010. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 150.1. Analytical work was performed with no deviations to the approved method.

Organic

- Alcohols/Glycols by EPA Method 8015. Analytical work was performed with no deviations to the approved method.
- PCBs by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270. Analytical work was performed with no deviations to the approved method.
- TPH Diesel Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- TPH Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260A. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA (Plutonium, Americium, Uranium and Neptunium) and GEA) were run by internal WDOE accredited WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Ammonia - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 11 for QC details. Analytical Note:

- Batch Matrix Spike, Matrix Spike Duplicate and Duplicate were analyzed on sample B191F (SDG#620041511, SAF# F03-025).

All QC controls are within the established limits.

Anions - The hold times for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See pages 12 through 13 for QC details. Analytical Notes:

- Sulfate - the result was less than the reporting detection limit, but greater than the method detection limit. The sample result was B flagged.
- Nitrate – The Duplicate relative percent difference exceeded the established laboratory limits. The RPD criterion is not applicable to sample results less than the reportable detection limit, but greater than the method detection limit. The sample result was B flagged.

All other QC controls are within the established limits.

Cyanide - The hold time for this analysis was met. A Blank, Preparation Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 14 for QC details. Analytical Note:

- Batch Matrix Spike and Matrix Spike Duplicate were analyzed on sample B190V8 (SDG#20041581, SAF# F04-013).

All QC controls are within the established limits.

ICP-AES Metals (Bismuth only) – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Batch Matrix Spike and Matrix Spike Duplicate were analyzed on sample B191F5 (SDG# 20041476, SAF# F03-025).

All QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 16 through 18 for QC details. Analytical Notes:

- Batch Matrix Spike and Matrix Spike Duplicate were analyzed on sample B190V8 (SDG# 20041581, SAF# F04-013).
- Mercury – Laboratory Control Sample exceeded established laboratory limits. The Matrix Spike and Matrix Spike Duplicate recoveries are within established laboratory limits. The sample result was not flagged.

All other QC controls are within the established limits.

Percent Solids – analyzed for organic moisture correction.

pH - The hold time for this analysis was met. All laboratory QC controls are within the established limits.

Organic Comments

- Sample results are moisture corrected and reported on dry weight basis.

Alcohol/Glycols - The hold time for this analysis were met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 22 for QC details. Analytical Note:

- Batch Matrix Spike and Matrix Spike Duplicate were analyzed on sample B191F8 (SDG#20041555, SAF# F03-025).

All QC controls are within the established limits

PCBs – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 23 through 24 for QC details. All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 25 through 30 for QC details. All QC controls are within the established limits.

TPHD-WA - The hold time for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See pages 31 through 32 for QC details. All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis were met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 33 for QC details. Analytical Note:

- Batch Matrix Spike, Matrix Spike Duplicate and Duplicate were analyzed on sample B191F8 (SDG# 20041555, SAF# F03-025).

All QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 34 through 36 for QC details. Analytical Note:

- Batch Matrix Spike and Matrix Spike Duplicate were analyzed on sample B192H4, (SDG# 20041637, SAF#F04-020).

All other QC controls are within the established limits.

Radiochemistry Comments

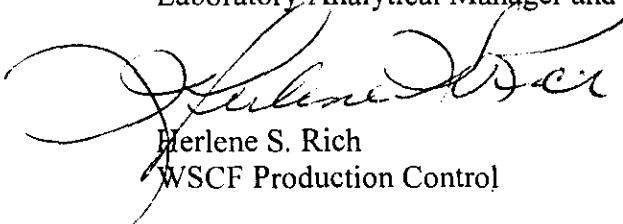
RadChem – There are no hold times associated with these WDOE accredited methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 38 through 42 for QC details. Analytical Notes:

- Americium-241, Neptunium-237, Plutonium-239/240 and Uranium-238 - The duplicate relative percent difference exceeded established laboratory limits. The RPD criterion does not apply for low level sample activity with greater than 25% counting error.
- Americium-241, Plutonium-239/240 and Uranium- Batch Duplicate was analyzed on sample B191F9 (SDG#20041585, SAF# F03-025).

All other QC controls are within the established limits.

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample ID	Isotope	Tracer Recovery (Percent)
BLANK		Pu-242	76.1
LCS		Pu-242	78.0
B191F9	W040001608	Pu-242	81.9
DUPLICATE	W040001608	Pu-242	65.4
B191H0	W040001618	Pu-242	79.9
BLANK		Am-243	84.7
LCS		Am-243	85.0
B191F9	W040001608	Am-243	75.1
DUPLICATE	W040001608	Am-243	71.6
B191H0	W040001618	Am-243	91.4
BLANK		U-232	72.6
LCS		U-232	63.9
B191F9	W040001608	U-232	75.8
DUPLICATE	W040001608	U-232	77.7
B191H0	W040001618	U-232	78.0

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.



Berlene S. Rich
WSCF Production Control

Abbreviations

Hg – mercury
IC – ion chromatography
ICP – inductively coupled plasma
ICP/AES – ICP/atomic emission spectroscopy
ICP/MS – ICP/mass spectrometry
Total U – total uranium
AT/TB – total alpha/total beta
AEA – Alpha Energy Analysis
WTPH-G – Total Hydrocarbons-Gasoline

Am – americium
Cm - curium
Pu – plutonium
Np – neptunium
GEA – gamma energy analysis
H3 – Tritium
Sr – Strontium 89, 90
WTPH-D – Total Hydrocarbons-Diesel
TSS – Total Suspended Solids

M8141-SLF-04-292

ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 44 pages
Including cover page

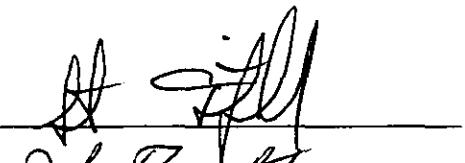
WSCF
ANALYTICAL RESULTS REPORT

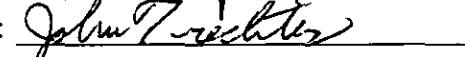
for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: 

Client Services: 

All results are reported on an "as received" basis unless otherwise noted in the comment section.

Confidentiality Notice: The information contained in this report is privileged and confidential information intended only for the use of the addressee. If the reader of this report is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone at (509) 373-7020.

Contract#: FH-EIS-2003-MEM-001

Report#: WSCF20041599

Report Date: 12-oct-2004

Report WGPP/ver. 1

Groundwater Remediation Program

Page 1

WSCF

ANALYTICAL RESULTS REPORT

**Attention:
Project:**

Steve Trent
F03-025: F03-025

Group #: WSCF20041599

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample	Receive
Inorganic												
W040001618	B191HO	TRENT	57-12-5	Cyanide	SOIL	LA-695-402	U	< 0.200	mg/kg	1.00	0.20	09/27/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	NH4-N	Nitrogen in ammonium	SOIL	LA-503-401	U	< 0.200	mg/kg	50.00	0.20	09/13/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	TS	Total solids	SOIL	LA-519-412		96.9	%	1.00	0.0	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	PH	pH Measurement	SOIL	LA-212-411		7.78	pH	1.00	0.010	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	16984-48-8	Fluoride	SOIL	LA-533-410	U	< 1.15	mg/kg	50.00	1.2	09/16/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	16887-00-6	Chloride	SOIL	LA-533-410	U	< 2.60	mg/kg	50.00	2.6	09/16/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	NO2-N	Nitrogen in Nitrite	SOIL	LA-533-410	U	< 0.950	mg/kg	50.00	0.95	09/16/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	NO3-N	Nitrogen in Nitrate	SOIL	LA-533-410	B	1.27	mg/kg	50.00	0.65	09/16/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	14265-44-2	Phosphate	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	09/16/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	B	6.24	mg/kg	50.00	5.0	09/16/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-69-9	Bismuth	SOIL	LA-505-411		2.94	mg/kg	1.00	2.2	09/20/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-02-0	Nickel	SOIL	LA-505-412		15.4	mg/kg	9.87	0.21	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-22-4	Silver	SOIL	LA-505-412		0.0356	mg/kg	9.87	9.9e-03	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-36-0	Antimony	SOIL	LA-505-412	U	< 7.05	mg/kg	9.87	7.0	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-39-3	Barium	SOIL	LA-505-412		50.0	mg/kg	9.87	0.91	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-41-7	Beryllium	SOIL	LA-505-412		0.234	mg/kg	9.87	0.020	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	U	< 0.0197	mg/kg	9.87	0.020	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-47-3	Chromium	SOIL	LA-505-412		7.98	mg/kg	9.87	3.3	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-50-8	Copper	SOIL	LA-505-412		12.0	mg/kg	9.87	0.63	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7439-92-1	Lead	SOIL	LA-505-412		4.51	mg/kg	9.87	0.26	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7439-97-6	Mercury	SOIL	LA-505-412		0.295	mg/kg	9.87	9.9e-03	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-61-1	Uranium	SOIL	LA-505-412		0.365	mg/kg	9.87	0.16	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7440-38-2	Arsenic	SOIL	LA-505-412	U	< 2.37	mg/kg	9.87	2.4	09/15/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	7782-49-2	Selenium	SOIL	LA-505-412	U	< 0.721	mg/kg	9.87	0.72	09/15/04 09/13/04 09/13/04

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: Ammonia (N) by IC

SAF Number: F03-025
 Sample Date: 08/31/04
 Receive Date: 08/31/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001547

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Ammonia (N) by IC	7664-41-7	2.61e-01	10.526	RPD	09/13/04	0.000	20.000	
MS	Ammonia (N) by IC	7664-41-7	3.89e-01	94.417	% Recov	09/13/04	75.000	125.000	
MSD	Ammonia (N) by IC	7664-41-7	4.14e-01	100.485	% Recov	09/13/04	75.000	125.000	

BATCH QC

BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	09/13/04	0.000	30.000	U
BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	09/13/04	0.000	30.000	U
LCS	Ammonia (N) by IC	7664-41-7	8.70e+01	105.839	% Recov	09/13/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: Anions by Ion Chromatography

SAF Number: F03-025

Sample Date: 09/13/04

Receive Date: 09/13/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001618

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	<2.60e0	n/a	RPD	09/16/04	0.000	20.000	U
DUP	Fluoride	16984-48-8	<1.15e0	n/a	RPD	09/16/04	0.000	20.000	U
DUP	Nitrogen in Nitrite	NO2-N	<9.50e-1	n/a	RPD	09/16/04	0.000	20.000	U
DUP	Nitrogen in Nitrate	NO3-N	2.20e+00	53.602	RPD	09/16/04	0.000	20.000	U
DUP	Phosphate	14265-44-2	<2.70e0	n/a	RPD	09/16/04	0.000	20.000	U
DUP	Sulfate	14808-79-8	<5.00e0	n/a	RPD	09/16/04	0.000	20.000	U
MS	Chloride	16887-00-6	9.92e-01	99.200	% Recov	09/16/04	75.000	125.000	
MS	Fluoride	16984-48-8	4.64e-01	93.927	% Recov	09/16/04	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	4.85e-01	97.000	% Recov	09/16/04	75.000	125.000	
MS	Nitrogen in Nitrate	NO3-N	4.44e-01	98.448	% Recov	09/16/04	75.000	125.000	
MS	Phosphate	14265-44-2	7.85e-01	81.011	% Recov	09/16/04	75.000	125.000	
MS	Sulfate	14808-79-8	1.82e+00	91.000	% Recov	09/16/04	75.000	125.000	
MSD	Chloride	16887-00-6	9.68e-01	96.800	% Recov	09/16/04	75.000	125.000	
MSD	Fluoride	16984-48-8	4.69e-01	94.939	% Recov	09/16/04	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	4.83e-01	96.600	% Recov	09/16/04	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	4.51e-01	100.000	% Recov	09/16/04	75.000	125.000	
MSD	Phosphate	14265-44-2	8.36e-01	86.275	% Recov	09/16/04	75.000	125.000	
MSD	Sulfate	14808-79-8	1.86e+00	93.000	% Recov	09/16/04	75.000	125.000	

BATCH QC

BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	09/16/04	0.000	300.000	U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: Anions by Ion Chromatography

SAF Number: F03-025

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<5.40e-2	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	09/16/04	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	09/16/04	0.000	300.000	U
LCS	Chloride	16887-00-6	1.98e+02	99.000	% Recov	09/16/04	80.000	120.000	
LCS	Fluoride	16984-48-8	9.05e+01	91.692	% Recov	09/16/04	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	9.79e+01	97.900	% Recov	09/16/04	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	8.53e+01	94.673	% Recov	09/16/04	80.000	120.000	
LCS	Phosphate	14265-44-2	1.88e+02	97.007	% Recov	09/16/04	80.000	120.000	
LCS	Sulfate	14808-79-8	3.71e+02	92.982	% Recov	09/16/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: Cyanide by Midi/Spectrophotom

SAF Number: F03-025

Sample Date: 09/08/04

Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001605

BATCH QC ASSOCIATED WITH SAMPLE

MS	Cyanide by Midi/Spectrophotom	57-12-5	95.1	95.100	% Recov	09/27/04	75.000	125.000	
MSD	Cyanide by Midi/Spectrophotom	57-12-5	92.4	92.400	% Recov	09/27/04	75.000	125.000	
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	92.400	2.880	RPD	09/27/04	0.000	20.000	

BATCH QC

BLANK	Cyanide by Midi/Spectrophotom	57-12-5	1	1.000	ug/L	09/27/04	-4.000	4.000	
BLNK-PREP	Cyanide by Midi/Spectrophotom	57-12-5	1	1.000	ug/L	09/27/04	-4.000	4.000	
LCS	Cyanide by Midi/Spectrophotom	57-12-5	96.3	96.300	% Recov	09/27/04	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: ICP Metals Analysis, Grd H2O P

SAF Number: F03-025

Sample Date: 08/25/04

Receive Date: 08/25/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001540

BATCH QC ASSOCIATED WITH SAMPLE

MS	Bismuth	7440-69-9	195	100.000	% Recov	09/20/04	75.000	125.000	
MSD	Bismuth	7440-69-9	198	101.538	% Recov	09/20/04	75.000	125.000	
SPK-RPD	Bismuth	7440-69-9	101.538	1.526	RPD	09/20/04	0.000	20.000	

BATCH QC

BLANK	Bismuth	7440-69-9	<5	n/a	ug/L	09/20/04	-1.000	0.068	U
LCS	Bismuth	7440-69-9	202	103.590	% Recov	09/20/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 09/08/04

Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001605									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Silver	7440-22-4	332.6	83.150	% Recov	09/15/04	70.000	130.000	
MS	Arsenic	7440-38-2	425.2	106.300	% Recov	09/15/04	70.000	130.000	
MS	Barium	7440-39-3	407.35	101.838	% Recov	09/15/04	70.000	130.000	
MS	Beryllium	7440-41-7	414.5	103.625	% Recov	09/15/04	70.000	130.000	
MS	Cadmium	7440-43-9	423	105.750	% Recov	09/15/04	70.000	130.000	
MS	Chromium	7440-47-3	410.438	102.609	% Recov	09/15/04	70.000	130.000	
MS	Copper	7440-50-8	408.838	102.209	% Recov	09/15/04	70.000	130.000	
MS	Mercury	7439-97-6	20.5963	102.981	% Recov	09/15/04	70.000	130.000	
MS	Nickel	7440-02-0	408.333	102.083	% Recov	09/15/04	70.000	130.000	
MS	Lead	7439-92-1	403.1401	100.785	% Recov	09/15/04	70.000	130.000	
MS	Antimony	7440-36-0	422.1	105.525	% Recov	09/15/04	70.000	130.000	
MS	Selenium	7782-49-2	441.1	110.275	% Recov	09/15/04	70.000	130.000	
MS	Uranium	7440-61-1	401.6	100.400	% Recov	09/15/04	70.000	130.000	
MSD	Silver	7440-22-4	384.4	96.100	% Recov	09/15/04	70.000	130.000	
MSD	Arsenic	7440-38-2	438.8	109.700	% Recov	09/15/04	70.000	130.000	
MSD	Barium	7440-39-3	419.55	104.888	% Recov	09/15/04	70.000	130.000	
MSD	Beryllium	7440-41-7	429	107.250	% Recov	09/15/04	70.000	130.000	
MSD	Cadmium	7440-43-9	433.7	108.425	% Recov	09/15/04	70.000	130.000	
MSD	Chromium	7440-47-3	423.638	106.909	% Recov	09/15/04	70.000	130.000	
MSD	Copper	7440-50-8	427.138	106.784	% Recov	09/15/04	70.000	130.000	
MSD	Mercury	7439-97-6	21.4563	107.281	% Recov	09/15/04	70.000	130.000	
MSD	Nickel	7440-02-0	419.433	104.858	% Recov	09/15/04	70.000	130.000	
MSD	Lead	7439-92-1	417.0401	104.260	% Recov	09/15/04	70.000	130.000	
MSD	Antimony	7440-36-0	433.3	108.325	% Recov	09/15/04	70.000	130.000	
MSD	Selenium	7782-49-2	449.1	112.275	% Recov	09/15/04	70.000	130.000	
MSD	Uranium	7440-61-1	419.4	104.850	% Recov	09/15/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 09/08/04

Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Silver	7440-22-4	96.100	14.449	RPD	09/15/04	0.000	20.000	
SPK-RPD	Arsenic	7440-38-2	109.700	3.148	RPD	09/15/04	0.000	20.000	
SPK-RPD	Barium	7440-39-3	104.888	2.951	RPD	09/15/04	0.000	20.000	
SPK-RPD	Beryllium	7440-41-7	107.250	3.438	RPD	09/15/04	0.000	20.000	
SPK-RPD	Cadmium	7440-43-9	108.425	2.498	RPD	09/15/04	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	105.909	3.165	RPD	09/15/04	0.000	20.000	
SPK-RPD	Copper	7440-50-8	106.784	4.378	RPD	09/15/04	0.000	20.000	
SPK-RPD	Mercury	7439-97-6	107.281	4.090	RPD	09/15/04	0.000	20.000	
SPK-RPD	Nickel	7440-02-0	104.858	2.682	RPD	09/15/04	0.000	20.000	
SPK-RPD	Lead	7439-92-1	104.260	3.389	RPD	09/15/04	0.000	20.000	
SPK-RPD	Antimony	7440-36-0	108.325	2.619	RPD	09/15/04	0.000	20.000	
SPK-RPD	Selenium	7782-49-2	112.275	1.797	RPD	09/15/04	0.000	20.000	
SPK-RPD	Uranium	7440-61-1	104.850	4.336	RPD	09/15/04	0.000	20.000	

BATCH QC

BLANK	Silver	7440-22-4	1.486e-2	0.015	ug/L	09/15/04	-0.440	0.440	
BLANK	Arsenic	7440-38-2	<0.24	n/a	ug/L	09/15/04	-0.660	0.660	U
BLANK	Barium	7440-39-3	<9.2e-2	n/a	ug/L	09/15/04	-0.440	0.440	U
BLANK	Beryllium	7440-41-7	1.561e-2	0.016	ug/L	09/15/04	-0.660	0.660	
BLANK	Cadmium	7440-43-9	<2e-3	n/a	ug/L	09/15/04	-0.220	0.220	U
BLANK	Chromium	7440-47-3	<0.336	n/a	ug/L	09/15/04	-0.660	0.660	U
BLANK	Copper	7440-50-8	<6.4e-2	n/a	ug/L	09/15/04	-1.100	1.100	U
BLANK	Mercury	7439-97-6	5.994e-2	0.060	ug/L	09/15/04	-0.220	0.220	
BLANK	Nickel	7440-02-0	8.521e-2	0.085	ug/L	09/15/04	-1.100	1.100	
BLANK	Lead	7439-92-1	<2.6e-2	n/a	ug/L	09/15/04	-2.640	2.640	U
BLANK	Antimony	7440-36-0	<0.714	n/a	ug/L	09/15/04	-1.100	1.100	U
BLANK	Selenium	7782-49-2	<7.3e-2	n/a	ug/L	09/15/04	-0.660	0.660	U
BLANK	Uranium	7440-61-1	1.882e-2	0.019	ug/L	09/15/04	-0.220	0.220	
LCS	Silver	7440-22-4	168.1	141.261	% Recov	09/15/04	110.000	170.000	
LCS	Arsenic	7440-38-2	206.7	106.000	% Recov	09/15/04	82.000	142.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Barium	7440-39-3	388.4	99.082	% Recov	09/15/04	79.000	123.000	
LCS	Beryllium	7440-41-7	82.69	109.814	% Recov	09/15/04	82.000	128.000	
LCS	Cadmium	7440-43-9	77.29	112.668	% Recov	09/15/04	88.000	127.000	
LCS	Chromium	7440-47-3	82.69	95.595	% Recov	09/15/04	50.000	126.000	
LCS	Copper	7440-50-8	141.7	111.575	% Recov	09/15/04	61.000	134.000	
LCS	Mercury	7439-97-6	11.92	126.674	% Recov	09/15/04	75.000	114.000	
LCS	Nickel	7440-02-0	93.02	111.268	% Recov	09/15/04	84.000	125.000	
LCS	Lead	7439-92-1	97.02	102.667	% Recov	09/15/04	87.000	120.000	
LCS	Antimony	7440-36-0	140.7	101.957	% Recov	09/15/04	61.000	135.000	
LCS	Selenium	7782-49-2	129.8	113.860	% Recov	09/15/04	83.000	145.000	
LCS	Uranium	7440-61-1	413.5	103.375	% Recov	09/15/04	89.000	107.000	

WSCF

ANALYTICAL RESULTS REPORT

**Attention:
Project:**

Steve Trent
F03-025: F03-025

Group #: WSCF20041599

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample	Receive
Organic												
W040001618	B191HO	TRENT	107-21-1	Ethylene glycol	SOIL	Organics	U	< 5.00e +03	ug/kg	1.00	5.0e +03	09/20/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	TPH/GASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e +02	09/16/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/22/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 99.0	ug/kg	1.00	99	09/22/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/22/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/22/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/22/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/22/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/22/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/22/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/22/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 660	ug/kg	1.00	6.6e +02	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 320	ug/kg	1.00	3.2e +02	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 100	ug/kg	1.00	1.0e +02	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 300	ug/kg	1.00	3.0e +02	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 68.0	ug/kg	1.00	68	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 68.0	ug/kg	1.00	68	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 68.0	ug/kg	1.00	68	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 68.0	ug/kg	1.00	68	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 68.0	ug/kg	1.00	68	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 310	ug/kg	1.00	3.1e +02	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e +02	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 68.0	ug/kg	1.00	68	09/21/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. I

Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F03-025: F03-025

Group #: WSCF20041599

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze Sample	Receive	
					Method	RQ						
W040001618	B191HO	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04 09/13/04 09/13/04

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1

Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent **Group #:** WSCF20041599
Project: F03-025: F03-025

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze Sample	Receive		
					Method	RQ								
W040001618	B191HO	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04	09/13/04	09/13/04
W040001618	B191HO	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04	09/13/04	09/13/04
W040001618	B191HO	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	09/23/04	09/13/04	09/13/04
W040001618	B191HO	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 41.0	ug/kg	1.00	41	09/23/04	09/13/04	09/13/04
W040001618	B191HO	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	09/20/04	09/13/04	09/13/04
W040001618	B191HO	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	09/20/04	09/13/04	09/13/04

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

- Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1

Groundwater Remediation Program

Page 4

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: Alcohols, Glycols - 8015

SAF Number: F03-025
 Sample Date: 09/07/04
 Receive Date: 09/07/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001570

BATCH QC ASSOCIATED WITH SAMPLE

DUP	2-Bromoethanol	540-51-2	11000	9.524	RPD	09/20/04	0.000	25.000	
DUP	Ethylene glycol	107-21-1	<5000	n/a	RPD	09/20/04	0.000	25.000	U
MS	2-Bromoethanol	540-51-2	12000	120.000	% Recov	09/20/04	70.000	125.000	
MS	Ethylene glycol	107-21-1	11000	110.000	% Recov	09/20/04	75.000	125.000	
MSD	2-Bromoethanol	540-51-2	12000	120.000	% Recov	09/20/04	70.000	125.000	
MSD	Ethylene glycol	107-21-1	10000	100.000	% Recov	09/20/04	75.000	125.000	
SPK-RPD	2-Bromoethanol	540-51-2	120.000	0.000	RPD	09/20/04	0.000	20.000	
SPK-RPD	Ethylene glycol	107-21-1	100.000	9.524	RPD	09/20/04	0.000	20.000	

BATCH QC

BLANK	2-Bromoethanol	540-51-2	10000	1.000	ug/Kg	09/20/04	0.000	10.000	
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/Kg	09/20/04	0.000	5.000	U
LCS	2-Bromoethanol	540-51-2	11000	110.000	% Recov	09/20/04	70.000	130.000	
LCS	Ethylene glycol	107-21-1	9400	94.000	% Recov	09/20/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: PCBs complete list

SAF Number: F03-025
 Sample Date: 09/09/04
 Receive Date: 09/09/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001612

BATCH QC ASSOCIATED WITH SAMPLE

MS	Aroclor-1260	11096-82-5	494.55	89.800	% Recov	09/22/04	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	1104.0	100.000	% Recov	09/22/04	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	758.19	68.800	% Recov	09/22/04	50.000	150.000	
MSD	Aroclor-1260	11096-82-5	519.26	95.000	% Recov	09/22/04	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	1205.4	110.000	% Recov	09/22/04	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	1023.4	93.700	% Recov	09/22/04	50.000	150.000	

Lab ID: W040001618

BATCH QC ASSOCIATED WITH SAMPLE

MS	Aroclor-1260	11096-82-5	419.27	81.900	% Recov	09/22/04	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	837.44	81.800	% Recov	09/22/04	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	965.68	94.300	% Recov	09/22/04	50.000	150.000	
MSD	Aroclor-1260	11096-82-5	253.20	100.000	% Recov	09/22/04	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	963.66	95.200	% Recov	09/22/04	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	934.00	92.200	% Recov	09/22/04	50.000	150.000	
SPK-RPD	Aroclor-1260	11096-82-5	100.000	19.901	RPD	09/22/04	0.000	25.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	95.200	15.141	RPD	09/22/04	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	92.200	2.252	RPD	09/22/04	0.000	20.000	
SURR	Decachlorobiphenyl	2051-24-3	856.52	86.400	% Recov	09/22/04	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	887.30	89.500	% Recov	09/22/04	50.000	150.000	

BATCH QC

BLANK	Aroclor-1016	12674-11-2	< 50	n/a	UGKG	09/22/04		U	
BLANK	Aroclor-1221	11104-28-2	< 100	n/a	ug/Kg	09/22/04		U	
BLANK	Aroclor-1232	11141-16-5	< 50	n/a	ug/Kg	09/22/04		U	
BLANK	Aroclor-1242	53469-21-9	< 50	n/a	ug/Kg	09/22/04		U	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: PCBs complete list

SAF Number: F03-025
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Aroclor-1248	12672-29-6	< 50	n/a	ug/Kg	09/22/04			U
BLANK	Aroclor-1254	11097-69-1	< 50	n/a	ug/Kg	09/22/04			U
BLANK	Aroclor-1260	11096-82-5	< 50	n/a	ug/Kg	09/22/04			U
BLANK	Aroclor-1262	37324-23-5	< 50	n/a	ug/Kg	09/22/04			U
BLANK	Aroclor-1268	11100-14-4	< 50	n/a	ug/Kg	09/22/04			U
BLANK	Decachlorobiphenyl	2051-24-3	827.23	82.700	% Recov	09/22/04	50.000	150.000	
BLANK	Tetrachloro-m-xylene	877-09-8	676.78	67.700	% Recov	09/22/04	50.000	150.000	
LCS	Aroclor-1260	11096-82-5	476.43	95.300	% Recov	09/22/04	70.000	130.000	
LCS	Decachlorobiphenyl	2051-24-3	742.18	74.200	% Recov	09/22/04	50.000	150.000	
LCS	Tetrachloro-m-xylene	877-09-8	826.48	82.600	% Recov	09/22/04	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date: 09/08/04
 Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040001605									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,2,4-Trichlorobenzene	120-82-1	3690.2	89.700	% Recov	09/21/04	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	3675.1	89.300	% Recov	09/21/04	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	3324.2	80.800	% Recov	09/21/04	59.000	106.000	
MS	2-Fluorophenol	367-12-4	4144.6	101.000	% Recov	09/21/04	42.000	105.000	
MS	Acenaphthene	83-32-9	3565.6	86.700	% Recov	09/21/04	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	5439.8	88.200	% Recov	09/21/04	61.000	106.000	
MS	2-Chlorophenol	95-57-8	6195.3	100.000	% Recov	09/21/04	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	3727.8	90.600	% Recov	09/21/04	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	3658.6	88.900	% Recov	09/21/04	56.000	122.000	
MS	Phenol	108-95-2	5988.8	97.100	% Recov	09/21/04	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	3706.5	90.100	% Recov	09/21/04	64.000	111.000	
MS	4-Nitrophenol	100-02-7	4572.5	74.100	% Recov	09/21/04	32.000	118.000	
MS	Pentachlorophenol	87-88-5	5687.6	92.200	% Recov	09/21/04	62.000	114.000	
MS	Phenol-d5	4165-62-2	3961.2	96.300	% Recov	09/21/04	54.000	120.000	
MS	Pyrene	129-00-0	3817.8	92.800	% Recov	09/21/04	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	3827.7	93.100	% Recov	09/21/04	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	3859.0	93.800	% Recov	09/21/04	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	3519.8	85.600	% Recov	09/21/04	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	3519.4	85.600	% Recov	09/21/04	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	3291.0	80.100	% Recov	09/21/04	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	3839.6	93.400	% Recov	09/21/04	42.000	105.000	
MSD	Acenaphthene	83-32-9	3450.6	84.000	% Recov	09/21/04	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	5501.6	89.200	% Recov	09/21/04	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	5960.5	96.700	% Recov	09/21/04	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	3660.6	89.100	% Recov	09/21/04	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	3434.9	83.600	% Recov	09/21/04	56.000	122.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: SW-846 8270B Semi-Vols

SAF Number: F03-025

Sample Date: 09/08/04

Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Phenol	108-95-2	6016.3	97.600	% Recov	09/21/04	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	3549.6	86.400	% Recov	09/21/04	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	4396.6	71.300	% Recov	09/21/04	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	4582.6	74.300	% Recov	09/21/04	62.000	114.000	
MSD	Phenol-d5	4165-62-2	3741.9	91.000	% Recov	09/21/04	54.000	120.000	
MSD	Pyrene	129-00-0	3910.9	95.200	% Recov	09/21/04	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	3540.5	86.100	% Recov	09/21/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	3959.7	96.300	% Recov	09/21/04	35.000	150.000	

Lab ID: W040001612

BATCH QC ASSOCIATED WITH SAMPLE

MS	1,2,4-Trichlorobenzene	120-82-1	4448.0	83.700	% Recov	09/22/04	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	4505.0	84.700	% Recov	09/22/04	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	3837.3	72.200	% Recov	09/22/04	59.000	106.000	
MS	2-Fluorophenol	367-12-4	4301.3	80.900	% Recov	09/22/04	42.000	105.000	
MS	Acenaphthene	83-32-9	4258.6	80.100	% Recov	09/22/04	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	6626.6	83.100	% Recov	09/22/04	61.000	106.000	
MS	2-Chlorophenol	95-57-8	7426.2	93.100	% Recov	09/22/04	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	4598.6	86.500	% Recov	09/22/04	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	4033.4	75.900	% Recov	09/22/04	56.000	122.000	
MS	Phenol	108-95-2	7125.2	89.300	% Recov	09/22/04	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	3911.4	73.600	% Recov	09/22/04	64.000	111.000	
MS	4-Nitrophenol	100-02-7	4586.8	57.500	% Recov	09/22/04	32.000	118.000	
MS	Pentachlorophenol	87-86-5	6042.6	75.800	% Recov	09/22/04	62.000	114.000	
MS	Phenol-d5	4165-62-2	4264.7	80.200	% Recov	09/22/04	54.000	120.000	
MS	Pyrene	129-00-0	4834.4	90.900	% Recov	09/22/04	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	3664.0	68.900	% Recov	09/22/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	4316.3	81.200	% Recov	09/22/04	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	4363.8	83.500	% Recov	09/22/04	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	4418.4	84.600	% Recov	09/22/04	30.000	96.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date: 09/09/04
 Receive Date: 09/09/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	2,4-Dinitrotoluene	121-14-2	3758.6	72.000	% Recov	09/22/04	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	4760.4	91.100	% Recov	09/22/04	42.000	105.000	
MSD	Acenaphthene	83-32-9	4202.4	80.500	% Recov	09/22/04	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	6557.5	83.700	% Recov	09/22/04	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	7249.9	92.500	% Recov	09/22/04	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	4393.9	84.100	% Recov	09/22/04	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	4338.5	83.100	% Recov	09/22/04	56.000	122.000	
MSD	Phenol	108-95-2	7258.4	92.600	% Recov	09/22/04	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	4230.3	81.000	% Recov	09/22/04	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	4738.2	60.500	% Recov	09/22/04	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	6412.2	81.800	% Recov	09/22/04	62.000	114.000	
MSD	Phenol-d5	4165-62-2	4700.1	90.000	% Recov	09/22/04	54.000	120.000	
MSD	Pyrene	129-00-0	4830.2	92.500	% Recov	09/22/04	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	3990.4	76.400	% Recov	09/22/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	4748.0	90.900	% Recov	09/22/04	35.000	150.000	

Lab ID: W040001618

BATCH QC ASSOCIATED WITH SAMPLE

MS	1,2,4-Trichlorobenzene	120-82-1	2946.2	85.800	% Recov	09/21/04	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	2981.4	86.800	% Recov	09/21/04	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	2579.7	75.100	% Recov	09/21/04	59.000	106.000	
MS	2-Fluorophenol	367-12-4	2966.7	86.400	% Recov	09/21/04	42.000	105.000	
MS	Acenaphthene	83-32-9	2787.1	81.100	% Recov	09/21/04	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	4468.2	86.700	% Recov	09/21/04	61.000	106.000	
MS	2-Chlorophenol	95-57-8	4813.2	93.400	% Recov	09/21/04	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	2976.5	86.600	% Recov	09/21/04	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	2857.3	83.200	% Recov	09/21/04	56.000	122.000	
MS	Phenol	108-95-2	4829.8	93.700	% Recov	09/21/04	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	2887.2	84.000	% Recov	09/21/04	64.000	111.000	
MS	4-Nitrophenol	100-02-7	3747.6	72.700	% Recov	09/21/04	32.000	118.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: SW-846 8270B Semi-Vols

SAF Number: F03-025

Sample Date: 09/13/04

Receive Date: 09/13/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Pentachlorophenol	87-86-5	4656.8	90.400	% Recov	09/21/04	62.000	114.000	
MS	Phenol-d5	4165-62-2	2999.7	87.300	% Recov	09/21/04	54.000	120.000	
MS	Pyrene	129-00-0	3140.9	91.400	% Recov	09/21/04	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	2817.4	82.000	% Recov	09/21/04	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	3207.9	93.400	% Recov	09/21/04	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	2910.7	84.900	% Recov	09/21/04	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	2884.7	84.100	% Recov	09/21/04	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	2753.2	80.300	% Recov	09/21/04	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	2932.1	85.500	% Recov	09/21/04	42.000	105.000	
MSD	Acenaphthene	83-32-9	2880.0	84.000	% Recov	09/21/04	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	4359.5	84.800	% Recov	09/21/04	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	4640.1	90.200	% Recov	09/21/04	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	2949.1	86.000	% Recov	09/21/04	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	2931.1	85.500	% Recov	09/21/04	56.000	122.000	
MSD	Phenol	108-95-2	4712.1	91.600	% Recov	09/21/04	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	2927.7	85.400	% Recov	09/21/04	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	3817.7	74.200	% Recov	09/21/04	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	4712.2	91.600	% Recov	09/21/04	62.000	114.000	
MSD	Phenol-d5	4165-62-2	2996.2	87.400	% Recov	09/21/04	54.000	120.000	
MSD	Pyrene	129-00-0	3235.0	94.400	% Recov	09/21/04	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	2781.3	81.100	% Recov	09/21/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	3234.2	94.300	% Recov	09/21/04	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	84.900	1.054	RPD	09/21/04	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	84.100	3.160	RPD	09/21/04	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	80.300	6.692	RPD	09/21/04	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	85.500	1.047	RPD	09/21/04	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	84.000	3.513	RPD	09/21/04	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	84.800	2.216	RPD	09/21/04	0.000	20.000	
SPK-RPD	2-Chlorophenol	95-57-8	90.200	3.486	RPD	09/21/04	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	86.000	0.695	RPD	09/21/04	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: SW-846 8270B Semi-Vols

SAF Number: F03-025

Sample Date: 09/13/04

Receive Date: 09/13/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	2-Fluorobiphenyl	321-60-8	85.500	2.727	RPD	09/21/04	0.000	20.000	
SPK-RPD	Phenol	108-95-2	91.600	2.267	RPD	09/21/04	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	85.400	1.653	RPD	09/21/04	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	74.200	2.042	RPD	09/21/04	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	91.600	1.319	RPD	09/21/04	0.000	20.000	
SPK-RPD	Phenol-d5	4165-62-2	87.400	0.114	RPD	09/21/04	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	94.400	3.229	RPD	09/21/04	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	81.100	1.104	RPD	09/21/04	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	94.300	0.959	RPD	09/21/04	0.000	20.000	
SURR	2-Fluorophenol	367-12-4	3007.8	87.900	% Recov	09/21/04	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	3074.4	89.900	% Recov	09/21/04	56.000	122.000	
SURR	Nitrobenzene-d5	4165-60-0	3121.6	91.300	% Recov	09/21/04	64.000	111.000	
SURR	Phenol-d5	4165-62-2	2970.2	86.800	% Recov	09/21/04	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	2629.9	76.900	% Recov	09/21/04	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	3367.9	98.500	% Recov	09/21/04	35.000	150.000	

BATCH QC

BLANK	1,2,4-Trichlorobenzene	120-82-1	< 290	n/a	ug/Kg	09/21/04		U
BLANK	1,4-Dichlorobenzene	106-46-7	< 310	n/a	ug/Kg	09/21/04		U
BLANK	2,4-Dinitrotoluene	121-14-2	< 67	n/a	ug/Kg	09/21/04		U
BLANK	2-Fluorophenol	367-12-4	2962.3	88.900	% Recov	09/21/04	42.000	105.000
BLANK	Acenaphthene	83-32-9	< 67	n/a	ug/Kg	09/21/04		U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 67	n/a	ug/Kg	09/21/04		U
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg	09/21/04		U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 67	n/a	ug/Kg	09/21/04		U
BLANK	2-Fluorobiphenyl	321-60-8	2715.9	81.500	% Recov	09/21/04	56.000	122.000
BLANK	Phenol	108-95-2	< 100	n/a	ug/Kg	09/21/04		U
BLANK	Nitrobenzene-d5	4165-60-0	2833.1	85.000	% Recov	09/21/04	64.000	111.000
BLANK	4-Nitrophenol	100-02-7	< 650	n/a	ug/Kg	09/21/04		U
BLANK	Pentachlorophenol	87-86-5	< 300	n/a	ug/Kg	09/21/04		U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Phenol-d5	4165-62-2	2838.9	85.200	% Recov	09/21/04	54.000	120.000	
BLANK	Pyrene	129-00-0	< 67	n/a	ug/Kg	09/21/04			U
BLANK	Tributyl phosphate	126-73-8	< 67	n/a	ug/Kg	09/21/04			U
BLANK	2,4,6-Tribromophenol	118-79-6	2510.8	75.300	% Recov	09/21/04	24.000	122.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	3191.0	95.700	% Recov	09/21/04	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	2835.9	85.100	% Recov	09/21/04	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	2869.5	86.100	% Recov	09/21/04	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	2627.1	78.800	% Recov	09/21/04	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	3290.5	98.700	% Recov	09/21/04	50.000	110.000	
LCS	Acenaphthene	83-32-9	2767.6	83.000	% Recov	09/21/04	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	4409.6	88.200	% Recov	09/21/04	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	4795.9	95.900	% Recov	09/21/04	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	2903.8	87.100	% Recov	09/21/04	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	2942.6	88.300	% Recov	09/21/04	58.000	109.000	
LCS	Phenol	108-95-2	4657.1	93.100	% Recov	09/21/04	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	2938.4	88.200	% Recov	09/21/04	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	3511.4	70.200	% Recov	09/21/04	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	4035.7	80.700	% Recov	09/21/04	62.000	114.000	
LCS	Phenol-d5	4165-62-2	3085.2	92.600	% Recov	09/21/04	59.000	116.000	
LCS	Pyrene	129-00-0	3115.4	93.500	% Recov	09/21/04	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	3015.2	90.500	% Recov	09/21/04	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	3213.0	96.400	% Recov	09/21/04	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-025

Sample Date: 09/08/04

Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001605

BATCH QC ASSOCIATED WITH SAMPLE

MS	Kerosene	TPHKEROSENE	20044	100.000	% Recov	09/21/04	70.000	130.000	
MS	ortho-Terphenyl	Surr	84-15-1	1068.2	102.000	% Recov	09/21/04	70.000	130.000
MSD	Kerosene	TPHKEROSENE	32074	101.000	% Recov	09/21/04	70.000	130.000	
MSD	ortho-Terphenyl	Surr	84-15-1	1649.0	100.000	% Recov	09/21/04	70.000	130.000

Lab ID: W040001612

BATCH QC ASSOCIATED WITH SAMPLE

MS	Kerosene	TPHKEROSENE	63395	94.100	% Recov	09/21/04	70.000	130.000	
MS	ortho-Terphenyl	Surr	84-15-1	3024.3	101.000	% Recov	09/21/04	70.000	130.000
MSD	Kerosene	TPHKEROSENE	47875	96.200	% Recov	09/21/04	70.000	130.000	
MSD	ortho-Terphenyl	Surr	84-15-1	3763.7	108.000	% Recov	09/21/04	70.000	130.000

Lab ID: W040001618

BATCH QC ASSOCIATED WITH SAMPLE

MS	Kerosene	TPHKEROSENE	117850	94.500	% Recov	09/20/04	70.000	130.000	
MS	ortho-Terphenyl	Surr	84-15-1	25924	104.000	% Recov	09/20/04	70.000	130.000
MSD	Kerosene	TPHKEROSENE	105870	85.000	% Recov	09/20/04	70.000	130.000	
MSD	ortho-Terphenyl	Surr	84-15-1	22677	91.100	% Recov	09/20/04	70.000	130.000
SPK-RPD	ortho-Terphenyl	Surr	84-15-1	91.100	13.224	RPD	09/20/04	0.000	20.000
SURR	ortho-Terphenyl	Surr	84-15-1	24116	96.900	% Recov	09/20/04	70.000	130.000

BATCH QC

BLANK	Kerosene	TPHKEROSENE	< 3800	n/a	ug/Kg	09/20/04			U
BLANK	ortho-Terphenyl	Surr	84-15-1	28089	112.000	% Recov	09/20/04	70.000	130.000
BLANK	Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3800	n/a	ug/Kg	09/20/04			U
LCS	ortho-Terphenyl	Surr	84-15-1	26731	107.000	% Recov	09/20/04	70.000	130.000

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-025

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	115680	92.500	% Recov	09/20/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: NWTPH-GX TPH Gasoline Range

SAF Number: F03-025

Sample Date: 09/07/04

Receive Date: 09/07/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001570

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	RPD	09/16/04	0.000	20.000	U
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	8400	103.704	% Recov	09/16/04	50.000	150.000	
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	8200	101.235	% Recov	09/16/04	50.000	150.000	
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	101.235	2.409	RPD	09/16/04	0.000	20.000	

BATCH QC

BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	mg/L	09/16/04	0.000	300.000	U
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3900	113.043	% Recov	09/16/04	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F03-025

Sample Date: 09/13/04

Receive Date: 09/13/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001618

BATCH QC ASSOCIATED WITH SAMPLE

SURR	4-Bromofluorobenzene	460-00-4	50.070	100.000	% Recov	09/23/04	71.000	125.000
SURR	1,2-Dichloroethane-d4	17060-07-0	60.420	121.000	% Recov	09/23/04	80.000	134.000
SURR	Toluene-d8	2037-26-5	55.500	111.000	% Recov	09/23/04	80.000	126.000

Lab ID: W040001673

BATCH QC ASSOCIATED WITH SAMPLE

MS	1,1-Dichloroethene	75-35-4	24.310	97.200	% Recov	09/23/04	63.000	117.000
MS	Benzene	71-43-2	28.260	113.000	% Recov	09/23/04	75.000	129.000
MS	4-Bromofluorobenzene	460-00-4	48.590	97.200	% Recov	09/23/04	84.000	116.000
MS	Chlorobenzene	108-90-7	27.430	110.000	% Recov	09/23/04	79.000	119.000
MS	1,2-Dichloroethane-d4	17060-07-0	58.580	117.000	% Recov	09/23/04	82.000	136.000
MS	Toluene-d8	2037-26-5	55.220	110.000	% Recov	09/23/04	89.000	119.000
MS	Toluene	108-88-3	27.240	109.000	% Recov	09/23/04	76.000	120.000
MS	Trichloroethene	79-01-6	26.150	105.000	% Recov	09/23/04	73.000	123.000
MSD	1,1-Dichloroethene	75-35-4	24.490	98.000	% Recov	09/23/04	63.000	117.000
MSD	Benzene	71-43-2	27.980	112.000	% Recov	09/23/04	75.000	129.000
MSD	4-Bromofluorobenzene	460-00-4	48.790	97.600	% Recov	09/23/04	84.000	116.000
MSD	Chlorobenzene	108-90-7	28.270	113.000	% Recov	09/23/04	79.000	119.000
MSD	1,2-Dichloroethane-d4	17060-07-0	59.580	119.000	% Recov	09/23/04	82.000	136.000
MSD	Toluene-d8	2037-26-5	55.910	112.000	% Recov	09/23/04	89.000	119.000
MSD	Toluene	108-88-3	28.230	113.000	% Recov	09/23/04	76.000	120.000
MSD	Trichloroethene	79-01-6	27.710	111.000	% Recov	09/23/04	73.000	123.000
SPK-RPD	1,1-Dichloroethene	75-35-4	98.000	0.820	RPD	09/23/04	0.000	25.000
SPK-RPD	Benzene	71-43-2	112.000	0.889	RPD	09/23/04	0.000	25.000
SPK-RPD	4-Bromofluorobenzene	460-00-4	97.600	0.411	RPD	09/23/04	0.000	25.000
SPK-RPD	Chlorobenzene	108-90-7	113.000	2.691	RPD	09/23/04	0.000	25.000

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F03-025

Sample Date: 09/10/04

Receive Date: 09/16/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	119.000	1.695	RPD	09/23/04	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	112.000	1.802	RPD	09/23/04	0.000	25.000	
SPK-RPD	Toluene	108-88-3	113.000	3.604	RPD	09/23/04	0.000	25.000	
SPK-RPD	Trichloroethene	79-01-6	111.000	5.556	RPD	09/23/04	0.000	25.000	

BATCH QC

BLANK	1,1-Dichloroethane	75-34-3	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	1,1,1-Trichloroethane	71-55-6	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	1,1,2-Trichloroethane	79-00-5	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	1,1-Dichloroethene	75-35-4	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	1,2-Dichloroethane	107-06-2	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	1-Butanol	71-36-3	< 40	n/a	ug/Kg	09/23/04		U	
BLANK	2-Hexanone	591-78-6	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	4-Methyl-2-Pentanone	108-10-1	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	Acetone	67-64-1	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	Bromodichloromethane	75-27-4	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	Benzene	71-43-2	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	4-Bromofluorobenzene	460-00-4	106.80	107.000	% Recov	09/23/04	71.000	125.000	
BLANK	Bromoform	75-25-2	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	Carbon disulfide	75-15-0	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	Carbon tetrachloride	56-23-5	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	Dibromochloromethane	124-48-1	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	Chloroform	67-66-3	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	Chlorobenzene	108-90-7	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	Chloroethane	75-00-3	< 2.0	n/a	ug/Kg	09/23/04		U	
BLANK	1,2-Dichloroethane-d4	17060-07-0	115.00	115.000	% Recov	09/23/04	80.000	134.000	
BLANK	1,2-Dichloropropane	78-87-5	< 2.0	n/a	ug/Kg	09/23/04		U	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F03-025

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Ethylbenzene	100-41-4	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	Bromomethane	74-83-9	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	Chloromethane	74-87-3	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	2-Butanone	78-93-3	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	Methylenechloride	75-09-2	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	Tetrachloroethene	127-18-4	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	Styrene	100-42-5	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	Xylenes (total)	1330-20-7	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	Toluene-d8	2037-26-5	113.70	114.000	% Recov	09/23/04	80.000	126.000	
BLANK	Toluene	108-88-3	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	Trichloroethene	79-01-6	< 2.0	n/a	ug/Kg	09/23/04			U
BLANK	Vinyl chloride	75-01-4	< 2.0	n/a	ug/Kg	09/23/04			U
LCS	1,1-Dichloroethene	75-35-4	23.650	94.600	% Recov	09/23/04	70.000	130.000	
LCS	Benzene	71-43-2	28.220	113.000	% Recov	09/23/04	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	51.310	103.000	% Recov	09/23/04	71.000	125.000	
LCS	Chlorobenzene	108-90-7	27.990	112.000	% Recov	09/23/04	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	60.060	120.000	% Recov	09/23/04	80.000	134.000	
LCS	Toluene-d8	2037-26-5	56.030	112.000	% Recov	09/23/04	80.000	126.000	
LCS	Toluene	108-88-3	28.110	112.000	% Recov	09/23/04	70.000	130.000	
LCS	Trichloroethene	79-01-6	27.190	109.000	% Recov	09/23/04	70.000	130.000	

WSCF

ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F03-025: F03-025

Group #: WSCF20041599

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample	Receive
Radiochemistry												
W040001618	B191HO	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471		0.120	pCi/g	1.00	0.051	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.052	pCi/g	1.00	0.0	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	6.97e-04	pCi/g	1.00	0.015	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	7.0e-03	pCi/g	1.00	0.0	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481		0.0583	pCi/g	1.00	0.015	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.018	pCi/g	1.00	0.0	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	-1.95e-03	pCi/g	1.00	0.042	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.020	pCi/g	1.00	0.0	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U	-0.0225	pCi/g	1.00	0.046	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.034	pCi/g	1.00	0.0	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481	U	0.0392	pCi/g	1.00	0.062	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.036	pCi/g	1.00	0.0	09/17/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	13994-20-2	Neptunium-237	SOIL	LA-508-471	U	1.80e-03	pCi/g	1.00	6.6e-03	10/05/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	Np-237 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.018	pCi/g	1.00	0.0	10/05/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U	0.0270	pCi/g	1.00	0.065	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.040	pCi/g	1.00	0.0	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		0.0140	pCi/g	1.00	5.5e-03	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471	+-	0.011	pCi/g	1.00	0.0	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471		0.420	pCi/g	1.00	0.029	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	+-	0.17	pCi/g	1.00	0.0	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471		0.0590	pCi/g	1.00	0.032	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.055	pCi/g	1.00	0.0	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.620	pCi/g	1.00	0.029	10/11/04 09/13/04 09/13/04
W040001618	B191HO	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.23	pCi/g	1.00	0.10	10/11/04 09/13/04 09/13/04

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: Americium by AEA

SAF Number: F03-025
 Sample Date: 09/08/04
 Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001608

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Americium-241	14596-10-2	-1.2e-02	1800.000	RPD	10/11/04	0.000	20.000	
-----	---------------	------------	----------	----------	-----	----------	-------	--------	--

BATCH QC

BLANK	Americium-241	14596-10-2	1.7e-02	0.017	pCi/g	10/11/04	-10.000	1000.000	
LCS	Americium-241	14596-10-2	44.08	83.802	% Recov	10/11/04	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599

Matrix: SOLID

Test: Gamma Energy Analysis-grd H₂O

SAF Number: F03-025

Sample Date: 09/13/04

Receive Date: 09/13/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001618

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Cobalt-60	10198-40-0	U2.22e-03	n/a	RPD	09/20/04	0.000	20,000	
DUP	Cesium-137	10045-97-3	5.55e-02	4.921	RPD	09/20/04	0.000	20,000	
DUP	Europium-152	14683-23-9	U-1.33e-2	n/a	RPD	09/20/04	0.000	20,000	
DUP	Europium-154	15585-10-1	U-3.24e-2	n/a	RPD	09/20/04	0.000	20,000	
DUP	Europium-155	14391-16-3	U2.97e-02	n/a	RPD	09/20/04	0.000	20,000	

BATCH QC

BLANK	Cobalt-60	10198-40-0	U-5.3e-4	n/a	pCi/g	09/20/04	-10,000	1000,000	
BLANK	Cesium-137	10045-97-3	U-8.2e-4	n/a	pCi/g	09/20/04	-10,000	1000,000	
BLANK	Europium-152	14683-23-9	U3.32e-3	n/a	pCi/g	09/20/04	-10,000	1000,000	
BLANK	Europium-154	15585-10-1	U1.23e-2	n/a	pCi/g	09/20/04	-10,000	1000,000	
BLANK	Europium-155	14391-16-3	U5.74e-3	n/a	pCi/g	09/20/04	-10,000	1000,000	
LCS	Cobalt-60	10198-40-0	4.40e+03	105.012	% Recov	09/20/04	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.84e+03	107.263	% Recov	09/20/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: Neptunium by AEA

SAF Number: F03-025
 Sample Date: 09/08/04
 Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001605

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Neptunium-237	13994-20-2	4.4e-03	37.838	RPD	10/05/04	0.000	25.000	
-----	---------------	------------	---------	--------	-----	----------	-------	--------	--

BATCH QC

BLANK	Neptunium-237	13994-20-2	8.4e-04	0.001	pCi/g	10/05/04	-10.000	1000.000	
LCS	Neptunium-237	13994-20-2	79	79.000	% Recov	10/05/04	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: Plutonium Isotopes by AEA

SAF Number: F03-025
 Sample Date: 09/08/04
 Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001608

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Pu-239/240 by AEA	PU-239/240	2.2e-03	165.079	RPD	10/11/04	0.000	20.000	
-----	-------------------	------------	---------	---------	-----	----------	-------	--------	--

BATCH QC

BLANK	Pu-239/240 by AEA	PU-239/240	4.0e-03	0.004	pCi/g	10/11/04	-10.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	49.01	99.614	% Recov	10/11/04	-75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20041599
 Matrix: SOLID
 Test: Uranium Isotopes by AEA

SAF Number: F03-025
 Sample Date: 09/08/04
 Receive Date: 09/08/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040001608

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Uranium-238	U-238	2.3e-01	24.390	RPD	10/11/04	0.000	20.000	
-----	-------------	-------	---------	--------	-----	----------	-------	--------	--

BATCH QC

BLANK	Uranium-238	24678-82-8	1.6e-02	0.016	pCi/g	10/11/04	-10.000	1000.000	
LCS	Uranium-238	24678-82-8	8.7e+01	114.745	% Recov	10/11/04	75.000	125.000	

WSCF
ANALYTICAL COMMENT REPORT

Attention:
Project Number

Steve Trent
F03-025

Group #: WSCF20041599

Sample #	Client ID	Lab Area	Test	Comment
W040001618	B191HO	TRENT	VALGROUP	SVOA: Sample concentrations have been corrected for moisture ans are reported on a dry weight basis. den
			VALTEST	Duplicate criterion not applicable for "B" flagged data -wb
			Anions by Ion Chromatography	

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample

VALTEST - Test Validation
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

This report may not be reproduced, except in its entirety without the written approval of the WSCF Laboratory.

WSCF

TENTATIVELY IDENTIFIED PEAK REPORT

Attention:
Project Number

Steve Trent
F03-025 :F03-025

Group #: WSCF20041599

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error			13	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error			14	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error			16	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error			19	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error			19	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error			19	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error			20	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error			20	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error			21	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error			34	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	U-235 Count Error			43	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	CS-134 Count Error			48	%
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	CS-134			0.035	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	U-235			0.062	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	SN-126			0.17	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	TL-208			0.21	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	BI-212			0.38	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	BI-214			0.41	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	RA-226			0.41	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	PB-214			0.46	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	AC-228			0.64	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	RA-228			0.64	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	PB-212			0.71	pCi/g
W040001618	B191HO	TRENT	Gamma Energy Analysis-grd H2O	K-40			20	pCi/g
W040001618	B191HO	TRENT	SW-846 8270B Semi-Vols	SMP 11.121 Unknown	Unknown	11.12105	J	6.1e +02 ug/kg

RQ=Result Qualifier

J - Analyte is an estimate, has potentially larger errors

This report may not be reproduced, except in its entirety without the written approval of the WSCF Laboratory.

Groundwater Remediation Program

WGPPE v 1 Report #: 20041599

Report Date: 12-oct-2004

Page 1

WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Steve Trent **Group #:** WSCF20041599
Project Number F03-025 :F03-025

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W040001618	B191HO	TRENT	SW-846 8270B Semi-Vols	SMP 14.942 Di-n-butylphthalate	84-74-2		14.94271	99 ug/kg

RQ=Result Qualifier

J - Analyte is an estimate, has potentially larger errors

This report may not be reproduced, except in its entirety without the written approval of the WSCF Laboratory.

Groundwater Remediation Program

WGPE v 1 Report #: 20041599

Report Date: 12-oct-2004

Page 2

WSCF

METHOD REFERENCES REPORT

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-212-411	Determination of Soil pH Measurement EPA SW-846 9045C	SOIL AND WASTE pH
LA-503-401	LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY EPA-600/4-86-024 300.7	Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical
LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE EPA SW-846 6010B	INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY
LA-505-412	LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY EPA-600/R-94-111 200.8	DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS
LA-508-471	LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP None	No reference to any industry method.
LA-508-481	LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE None	No reference to any industry method.
LA-519-412	LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C EPA-600/4-79-020 160.3	RESIDUE, TOTAL
	Standard Methods 2540B	Total Solids Dried at 103-105 C
LA-523-427	LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY EPA SW-846 3510C	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
	EPA SW-846 3545	PRESSURIZED FLUID EXTRACTION (PFE)

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at
<\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf>. This document includes on-line
links to full-text versions of the procedures and methods, where available.

Report Date: 12-oct-2004

Report #: WSCF20041599

Report WGPPM/I

WSCF

METHOD REFERENCES REPORT

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

	EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8082	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
LA-523-443	LA-523-443: GAS CHROMATOGRAPH ANALYSIS OF GASOLINE RANGE TOTAL PETROLEUM HYDROCARBONS WDOE TPH NWTPH-G	Volatile Petroleum Products Method for Soil and Water
LA-523-455	LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846 EPA SW-846 8000B EPA SW-846 8260B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
LA-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C EPA SW-846 8000B EPA SW-846 8270C	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY EPA-600/R-94-111 300	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
LA-695-402	LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC EPA-600/4-79-020 335.2	Cyanide, Total
NWTPH	NWTPH-Diesel and/or Gasoline WDOE NWTPH-Dx/Gx	Total Petroleum Hydrocarbons - Diesel/Gasoline
Organics	Organics - Alcohols, Glycols	

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at
<\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf>. This document includes on-line
links to full-text versions of the procedures and methods, where available.

Report Date: 12-oct-2004

Report #: WSCF20041599

Report WGPPM/O

WSCF

METHOD REFERENCES REPORT

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

EPA SW-846 8015B

Nonhalogenated Organics Using GC/FID

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at
\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf. This document includes on-line
links to full-text versions of the procedures and methods, where available.

Report Date: 12-oct-2004

Report #: WSCF20041599

Report WGPPM/O

Page 3

W13q Worklist/Batch/QC Report for Group# WSCF20041599

WL#	S#	Batch	QC#	Tray	Type	Sample#	Test
				SAMPLE		W040001618	Percent Solids
				SAMPLE		W040001618	pH Soil and Waste Measurement
23229	2	23596	26796	BLANK			Ammonia (N) by IC
23229	12	23596	26796	BLANK			Ammonia (N) by IC
23229	3	23596	26796	LCS			Ammonia (N) by IC
23229	5	23596	26796	DUP		W040001547	Ammonia (N) by IC
23229	6	23596	26796	MS		W040001547	Ammonia (N) by IC
23229	7	23596	26796	MSD		W040001547	Ammonia (N) by IC
23229	11	23596	26796	SAMPLE		W040001618	Ammonia (N) by IC
23245	1	23613	26817	BLANK			ICP-2008 MS All possible metal
23245	2	23613	26817	LCS			ICP-2008 MS All possible metal
23245	4	23613	26817	MS		W040001605	ICP-2008 MS All possible metal
23245	5	23613	26817	MSD		W040001605	ICP-2008 MS All possible metal
23245	0	23613	26817	SPK-RPD		W040001605	ICP-2008 MS All possible metal
23245	9	23613	26817	SAMPLE		W040001618	ICP-2008 MS All possible metal
23269	2	23637	26837	BLANK			Anions by Ion Chromatography
23269	10	23637	26837	BLANK			Anions by Ion Chromatography
23269	3	23637	26837	LCS			Anions by Ion Chromatography
23269	5	23637	26837	DUP		W040001618	Anions by Ion Chromatography
23269	6	23637	26837	MS		W040001618	Anions by Ion Chromatography
23269	7	23637	26837	MSD		W040001618	Anions by Ion Chromatography
23269	4	23637	26837	SAMPLE		W040001618	Anions by Ion Chromatography
23251	1	23619	26841	BLANK			ICP Metals Analysis, Grd H2O P
23251	2	23619	26841	LCS			ICP Metals Analysis, Grd H2O P
23251	4	23619	26841	MS		W040001540	ICP Metals Analysis, Grd H2O P
23251	5	23619	26841	MSD		W040001540	ICP Metals Analysis, Grd H2O P
23251	0	23619	26841	SPK-RPD		W040001540	ICP Metals Analysis, Grd H2O P
23251	10	23619	26841	SAMPLE		W040001618	ICP Metals Analysis, Grd H2O P
23255	1	23629	26867	BLANK			Gamma Energy Analysis-grd H2O
23255	2	23629	26867	LCS			Gamma Energy Analysis-grd H2O
23255	3	23629	26867	DUP		W040001618	Gamma Energy Analysis-grd H2O
23255	4	23629	26867	SAMPLE		W040001618	Gamma Energy Analysis-grd H2O
			26916	BLANK			PCBs complete list
			26916	LCS			PCBs complete list
			26916	MS		W040001612	PCBs complete list
			26916	MSD		W040001612	PCBs complete list
			26916	MS		W040001618	PCBs complete list
			26916	MSD		W040001618	PCBs complete list
			26916	SAMPLE		W040001618	PCBs complete list
			26916	SPK-RPD		W040001618	PCBs complete list
			26916	SURR		W040001618	PCBs complete list
			26917	BLANK			WTPH-D TPH Diesel Range (Wa)
			26917	LCS			WTPH-D TPH Diesel Range (Wa)
			26917	MS		W040001605	WTPH-D TPH Diesel Range (Wa)
			26917	MSD		W040001605	WTPH-D TPH Diesel Range (Wa)
			26917	MS		W040001612	WTPH-D TPH Diesel Range (Wa)
			26917	MSD		W040001612	WTPH-D TPH Diesel Range (Wa)

		26917	MS	W040001618	WTPH-D TPH Diesel Range (Wa)
		26917	MSD	W040001618	WTPH-D TPH Diesel Range (Wa)
		26917	SAMPLE	W040001618	WTPH-D TPH Diesel Range (Wa)
		26917	SPK-RPD	W040001618	WTPH-D TPH Diesel Range (Wa)
		26917	SURR	W040001618	WTPH-D TPH Diesel Range (Wa)
		26919	BLANK		SW-846 8270B Semi-Vols
		26919	LCS		SW-846 8270B Semi-Vols
		26919	MS	W040001605	SW-846 8270B Semi-Vols
		26919	MSD	W040001605	SW-846 8270B Semi-Vols
		26919	MS	W040001612	SW-846 8270B Semi-Vols
		26919	MSD	W040001612	SW-846 8270B Semi-Vols
		26919	MS	W040001618	SW-846 8270B Semi-Vols
		26919	MSD	W040001618	SW-846 8270B Semi-Vols
		26919	SAMPLE	W040001618	SW-846 8270B Semi-Vols
		26919	SPK-RPD	W040001618	SW-846 8270B Semi-Vols
		26919	SURR	W040001618	SW-846 8270B Semi-Vols
		27012	BLANK		Cyanide by Midi/Spectrophotom
		27012	BLNK-PREP		Cyanide by Midi/Spectrophotom
		27012	LCS		Cyanide by Midi/Spectrophotom
		27012	MS	W040001605	Cyanide by Midi/Spectrophotom
		27012	MSD	W040001605	Cyanide by Midi/Spectrophotom
		27012	SPK-RPD	W040001605	Cyanide by Midi/Spectrophotom
		27012	SAMPLE	W040001618	Cyanide by Midi/Spectrophotom
23449	1	23816	27077	BLANK	Neptunium by AEA
23449	2	23816	27077	LCS	Neptunium by AEA
23449	3	23816	27077	DUP	Neptunium by AEA
23449	6	23816	27077	SAMPLE	Neptunium by AEA
23534	1	23898	27114	BLANK	NWTPH-GX TPH Gasoline Range
23534	2	23898	27114	LCS	NWTPH-GX TPH Gasoline Range
23534	4	23898	27114	DUP	NWTPH-GX TPH Gasoline Range
23534	5	23898	27114	MS	NWTPH-GX TPH Gasoline Range
23534	6	23898	27114	MSD	NWTPH-GX TPH Gasoline Range
23534	6	23898	27114	SPK-RPD	NWTPH-GX TPH Gasoline Range
23534	8	23898	27114	SAMPLE	NWTPH-GX TPH Gasoline Range
23537	1	23901	27116	BLANK	Alcohols, Glycols - 8015
23537	2	23901	27116	LCS	Alcohols, Glycols - 8015
23537	4	23901	27116	DUP	Alcohols, Glycols - 8015
23537	5	23901	27116	MS	Alcohols, Glycols - 8015
23537	6	23901	27116	MSD	Alcohols, Glycols - 8015
23537	6	23901	27116	SPK-RPD	Alcohols, Glycols - 8015
			27116	SAMPLE	Alcohols, Glycols - 8015
			27202	BLANK	VOA Ground Water Protection
			27202	LCS	VOA Ground Water Protection
			27202	SAMPLE	VOA Ground Water Protection
			27202	SURR	VOA Ground Water Protection
			27202	MS	VOA Ground Water Protection
			27202	MSD	VOA Ground Water Protection
			27202	SPK-RPD	VOA Ground Water Protection
23550	1	23911	27204	BLANK	Uranium Isotopics by AEA
23550	2	23911	27204	LCS	Uranium Isotopics by AEA
23550	3	23911	27204	DUP	Uranium Isotopics by AEA
23550	5	23911	27204	SAMPLE	Uranium Isotopics by AEA

23548	1	23914	27205	BLANK		Plutonium Isotopics by AEA
23548	2	23914	27205	LCS		Plutonium Isotopics by AEA
23548	3	23914	27205	DUP	W040001608	Plutonium Isotopics by AEA
23548	5	23914	27205	SAMPLE	W040001618	Plutonium Isotopics by AEA
23549	1	23913	27206	BLANK		Americium by AEA
23549	2	23913	27206	LCS		Americium by AEA
23549	3	23913	27206	DUP	W040001608	Americium by AEA
23549	5	23913	27206	SAMPLE	W040001618	Americium by AEA

M8141-SLF-04-292

ATTACHMENT 3

SAMPLE RECEIPT INFORMATION

Consisting of 4 pages
Including cover page

Waste Sampling and Characterization Facility
 P.O. BOX 1970 S3-30, Richland, WA 99352
 PHONE: (509) 373-7004/FAX: (509) 373-7134

10/13/04

ACKNOWLEDGMENT OF SAMPLES RECEIVED

File KB

Groundwater Remediation Program

Richland, WA 99354
 Attn: Steve Trent

Customer Code: GPP
 PO#: 119143/ES10
 Group#: 20041599
 Project#: F03-025
 Proj Mgr: Steve Trent A0-21
 Phone: 373-5869

The following samples were received from you on 09/13/04. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Matrix	Sample Date
Tests Scheduled			
W040001618	B191H0	TRENT	Solid, or handle as if solid
		@2008	@8015GPP @AEA-30 @AEA-31 @AEA-32
		@AEA-33	@GEA-GPP @GPP6010 @IC-30 @PCBGPP @SVOC
		@TPHD-WA	@TPHG-WA @VOA-GPP CN-02 NH4-IC PERSO
		PH-30	

Test Acronym Description

Test Acronym	Description
@2008	ICP-2008 MS All possible metal
@8015GPP	Alcohols, Glycols - 8015
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@GPP6010	ICP Metals Analysis, Grd H2O P
@IC-30	Anions by Ion Chromatography
@PCBGPP	PCBs complete list
@SVOCGPP	SW-846 8270B Semi-Vols
@TPHD-WA	WTPH-D TPH Diesel Range (Wa)
@TPHG-WA	NWTPH-GX TPH Gasoline Range
@VOA-GPP	VOA Ground Water Protection
CN-02	Cyanide by Midi/Spectrophotom
NH4-IC	Ammonia (N) by IC
PERSOLID	Percent Solids
PH-30	pH Soil and Waste Measurement

FLUOR Hanford Inc.		10/13	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F03-025-102	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Wiberg/Tyra		COMPANY CONTACT TRENT, STEVE			TELEPHONE NO. 373-5689		PROJECT COORDINATOR TRENT, SJ		PRICE CODE	8N	DATA TURNAROUND	
SAMPLING LOCATION 216-S-20, 2300-232-5R 238'-240.5'		PROJECT DESIGNATION 200-LW-1/LW-2 Characterization - Soil					SAF NO. F03-025		AIR QUALITY	<input type="checkbox"/>	45 Days / 45 Days	
ICE CHEST NO. 913-13-04		FIELD LOGBOOK NO. HNF-N-356 1		COA 119143ES10		METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A							
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A Z6041599	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None			
		TYPE OF CONTAINER	Gs*	aG	aG	Gs*	P	aG	aG			
		NO. OF CONTAINER(S)	3	1	1	3	1	1	1			
		VOLUME	40mL	120mL	120mL	40mL	500mL	250mL	120mL			
SPECIAL HANDLING AND/OR STORAGE N/A		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	PCB - 8082;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B191H0	SOIL	9-13-04	0715	X	X	X	X	X	X			
W04060 1618												
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM TS/SL/AG 9-0-04 0530	DATE/TIME	RECEIVED BY/STORED IN KBS/KB/Bob 9/13/04 0530	DATE/TIME									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
LABORATORY SECTION	RECEIVED BY			TITLE				DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD			DISPOSED BY				DATE/TIME				

FLUOR Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F03-025-102	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Wiberg/Tyra	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5689	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-S-20; 220B-222.5ft <i>238'-240.5' ft</i>	PROJECT DESIGNATION 200-LW-1/LW-2 Characterization - Soil		SAF NO. F03-025	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO. <i>9-13-94</i>	FIELD LOGBOOK NO. HNF-N-356 1	COA 119143ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS					
<p>The lab is to analyze pH within 24 hours of sample receipt. The lab is to report kerosene range organics from the WTPH-D analysis. FH acknowledges that the analytical holding time for Nitrate, Nitrite and Phosphate by EPA Method 300.0 will not be met.</p> <p>(1)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol} (2)Semi-VOA - 8270A (TCL) {Phenol} Semi-VOA - 8270A (Add-On) {Tributyl phosphate} TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} TPH-Gasoline Range - WTPH-G; (3)Alcohols, Glycols, & Ketones - 8015 {Ethylene glycol} (4)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Gamma Spec - Add-on {Antimony-125, Cesium-137} Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Americium-241; (5)ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Copper, Nickel, Silver} ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Mercury, Selenium, Uranium} ICP Metals - 6010A (Add-on) {Bismuth}; (6)IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate} Cations (IC) - 300.7 {Nitrogen in ammonium} Cyanide (Total) - 335.2; pH (Soil) - 9045;</p> <p style="text-align: center;"><i>mm 8-4-04</i></p>					